IN THE CLAIMS

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1. (Currently amended) A method of providing frequency correction for a spread spectrum communication receiver, ~~said receiver being arranged to despread a digital code spread signal having a first data rate to provide at least one despread data signal having a second, lower data rate, wherein said method comprises the steps of~~comprising:

receiving a first signal having a first data rate;

determining, based at least on the first signal, a second signal having a second data rate, wherein the second data rate is lower than the first data rate;

determining, based at least on the second signal, a third signal having a third data rate, wherein the third data rate is lower than the second data rate;

~~i)~~ determining a frequency offset by processing ~~successive~~ samples of said ~~despread data~~third signal;

B1 cont

~~ii)~~ generating a correction sequence from said determined frequency offset; and

~~iii)~~ combining said ~~digital code spread~~second signal having said ~~first~~ second data rate with said correction sequence obtained from said ~~despread data~~third signal having said ~~second, lower~~third data rate to correct the determined frequency offset.

2. (Original) The method of claim 1 further comprising the step of filtering the determined frequency offset prior to the generation of a correction sequence therefrom to reduce noise therein.

3. (Original) The method of claim 1 wherein said step of determining a frequency offset includes the performance of a data processing operation comprising the calculation of the

mathematical argument of a complex sample multiplied by the complex conjugate of a preceding complex sample.

4. (Currently amended) The method of claim 1 wherein the communication system is a code division multiple access communication system and wherein the frequency offset is determined from consecutive symbol samples and the frequency offset is corrected by multiplying received data by a correction factor ~~prior to despreading to obtain said symbol samples~~.

5. (Currently Amended) The method of claim 1 wherein said correction sequence is an up-sampled complex correction sequence $Z_{offs}(k)$, <u>where k represents a given sampling instant,</u> where $Z_{offs}(k)$ is equal to 1 x exp $\{j\varphi_{offs}(k)\}$ where $\varphi_{offs}(k)$ represents phase offset values at the first rate which are linearly interpolated from an average phase difference at the ~~second~~ <u>third data</u> rate.

B1 Cont

6. (Currently amended) A spread spectrum communication system comprising a plurality of receivers for receiving transmitted signals, wherein each receiver comprises:

an RF signal receiver for generating an analog signal from a received RF signal;

an analog to digital converter for converting said analog signal into a ~~code spread~~ digital signal<u>, the digital signal having a first data rate</u>;

<u>a downconverter for downconverting the digital signal to a second signal having a second data rate, wherein the second data rate is lower than the first data rate;</u>

a digital signal despreader for processing the ~~code spread digital~~ second signal having ~~a~~ ~~first~~the second data rate to obtain a despread digital signal having a ~~second~~ third data rate, said ~~second~~ third data rate being lower than said ~~first~~ second data rate; and

a frequency corrector,

wherein said frequency corrector comprises a feedback loop including a frequency offset detector for obtaining a measure of a frequency offset from said despread digital signal and a frequency correction generator for generating a frequency correction and a combiner for combining said frequency correction with said ~~code spread digital~~ second signal to correct said frequency offset.

B1 cont

7. (Original) A spread spectrum communication system according to claim 6 wherein said feedback loop includes a filter for filtering said measure of said frequency offset to reduce noise therein.

8. (Previously presented) A spread spectrum communication system according to claim 6 wherein said frequency offset detector is adapted to perform a mathematical operation of determining the mathematical argument of a complex sample of said despread digital signal multiplied by the complex conjugate of an immediately preceding sample of said despread digital signal.

9. (Currently amended) A spread spectrum communication system according to claim 6 wherein said frequency corrector includes a multiplier for multiplying said second ~~code-spread~~ ~~digital~~ signal by a correction factor prior to despreading said code-spread signal.

10. (Currently amended) A spread spectrum communication system according to claim 6 wherein said frequency correction generator comprises an interpolator for calculating phase offset values for said ~~code-spread~~ second digital signal from an average phase difference calculated from samples of said despread signal.

B1 cont

11. (Original) A spread spectrum communication system according to claim 6 wherein said communication system is a code division multiple access system.

12. (Original) A spread spectrum communication system according to claim 6 wherein said communication system is a wireless local loop link.

13. (Currently amended) A receiver for a spread spectrum communication system comprising:

~~an RF signal receiver for generating an analog signal from a received RF signal;~~

an analog to digital converter for converting ~~said~~ an analog signal into a ~~code-spread~~ digital signal;

a downconverter for downconverting the digital signal to a second signal having a second data rate, wherein the second data rate is lower than the first data rate;

a digital signal despreader for processing the ~~code spread digital~~second signal having ~~a~~ ~~first~~the second data rate to obtain a despread digital signal having a ~~second~~ third data rate, said ~~second~~ third data rate being lower than said ~~first~~ second data rate; and

a frequency corrector,

wherein said frequency corrector comprises a feedback loop including a frequency offset detector for obtaining a measure of a frequency offset from said despread digital signal and a frequency correction generator for generating a frequency correction and a combiner for combining said frequency correction with said ~~code spread~~ ~~digital~~second signal to correct said frequency offset.

B1 Cont

14. Cancelled.

15. (Currently amended) The receiver of claim ~~14~~13, further comprising a timing circuitry communicatively coupled between the analog to digital converter and the down-converter to perform a timing correction function.

16. Cancelled.

17. (Currently amended) The ~~receive~~ system of claim ~~16~~, further comprising a timing circuitry communicatively coupled between the analog to digital converter and the down-converter to perform a timing correction function.

18. Cancelled.

19. (New) The system of claim 6, wherein said frequency correction is an up-sampled complex correction sequence $Z_{offs}(k)$, where k represents a given sampling instant, and where $Z_{offs}(k)$ is equal to 1 x exp $\{j\varphi_{offs}(k)\}$ where $\varphi_{offs}(k)$ represents phase offset values at the first rate which are linearly interpolated from an average phase difference at the third rate.

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~~1.~~20. (New) The receiver of claim 13, wherein said frequency correction is an up-sampled complex correction sequence $Z_{offs}(k)$, where k represents a given sampling instant, and where $Z_{offs}(k)$ is equal to 1 x exp $\{j\varphi_{offs}(k)\}$ where $\varphi_{offs}(k)$ represents phase offset values at the first rate which are linearly interpolated from an average phase difference at the third rate.